

## Missouri Waste Diversion Status Report For Calendar Year 2007

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### Solid Waste Management Program

#### INTRODUCTION

The Missouri Department of Natural Resources Solid Waste Management Program (SWMP) has been collecting data on waste since 1990 in order to assess progress in the state's waste diversion efforts, as established in Senate Bill 530 (1990). This bill contained legislation pertaining to landfill permitting requirements, set state-wide goals for solid waste recovery and reduction (40 percent reduction in solid waste disposal by January 1, 1998), banned certain items from Missouri landfills, set up a solid waste management fund and provided for the development of Solid Waste Management Districts (20 districts in the state now).

#### DISCUSSION

**Waste diversion basics:** Waste diversion can be accomplished in a variety of ways, from preventing garbage being disposed of in a landfill (reduction of materials used or bought), by reusing products, recycling items, or composting. Missourians generated approximately 12.8 million tons of waste during calendar year 2007, 46 percent of which was diverted and put to good use instead of being disposed of in landfills. This is an increase in diversion over the 44 percent reported for calendar year 2006 (Table 1).

Successful waste diversion can accomplish many important environmental goals, from conservation of natural resources, reduction of pollution and greenhouse gases (GHG), development of greener technologies, reducing the cost to businesses and individuals for waste disposal in landfills and incinerators and saving energy.

Waste diversion by recycling provides benefits at every stage of the life cycle of a consumer product – from the mining of raw materials through use and final disposal.

**Current issues:** Today, global climate change has driven waste diversion to the forefront. Around the world, from industry to individuals, residential to commercial, most people are very aware of the “carbon footprint” they produce and its impact on the environment. By diverting waste from landfills, methane, a harmful GHG and a major contributor to global climate change, is greatly reduced. Also, diverting waste by recycling products rather than producing them from virgin materials produces less carbon dioxide (CO<sub>2</sub>) and other GHG during the manufacturing process. According to the National Recycling Coalition Executive Director Kate Krebs, “The environmental and economic benefits of recycling are well established, and have been the foundation for the growth of recycling programs over the last 30 years. What most folks don't know is that recycling also substantially reduces the emissions of greenhouse gases.”

At the present time recycling rates in the US have leveled off, after having two decades of substantial growth, despite the global market boom for commodities. Some of that decline is a result of inadequate or aging recycling infrastructure and a public in need of motivation from new and personal messages on the value of recycling. Many organizations are working hard to change this trend, by investing in public education and infrastructure, helping communities buy new collection vehicles, modernize processing facilities and rejuvenate local and national education programs. In the future we may see public policy reward increases in recycling, from communities participating in emissions trading markets to direct or indirect incentives to participants recovering materials from waste streams. Carbon footprint and carbon offset will be terms everyone will be familiar with.

# Missouri Department of Natural Resources

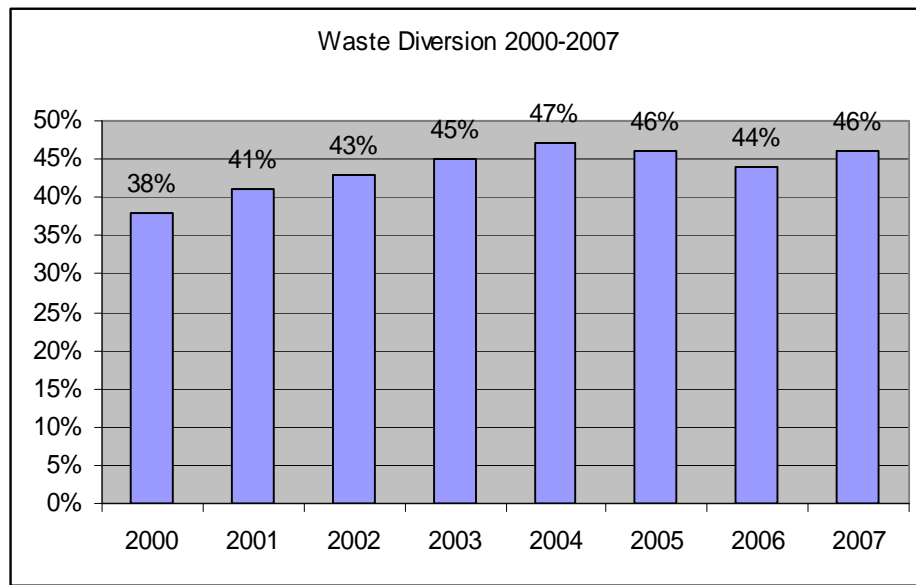


Table 1

Table 1 represents the volume of waste diverted from the waste stream for calendar years 2000-2007.

Over the last six years the annual per capita disposal in Missouri has increased from 1.14 tons per person in 2000 to 1.18 tons per person in 2007 (see Table 2). This is not a significant increase, however past studies have indicated that a robust economy can drive an increase in personal consumption expenditures, resulting in an increase in waste generation and disposal. Increases in waste disposal volumes can also occur in years where heavy storm damage has allowed storm debris, including items currently banned from the state's landfills (vegetative yard waste and appliances) to be placed in landfills. These situations are monitored carefully, and are approved only after the Governor issues an executive order allowing waivers to be granted to help expedite the removal and disposal of storm debris. These executive orders give the Department of Natural Resources' discretion to waive laws and rules pertaining to waste disposal. In recent years Missouri has issued waivers numerous times due to ice storms and flooding. Although much of that storm debris is landfilled, allowances have also been made to burn, which may reduce the amounts disposed of in landfills.

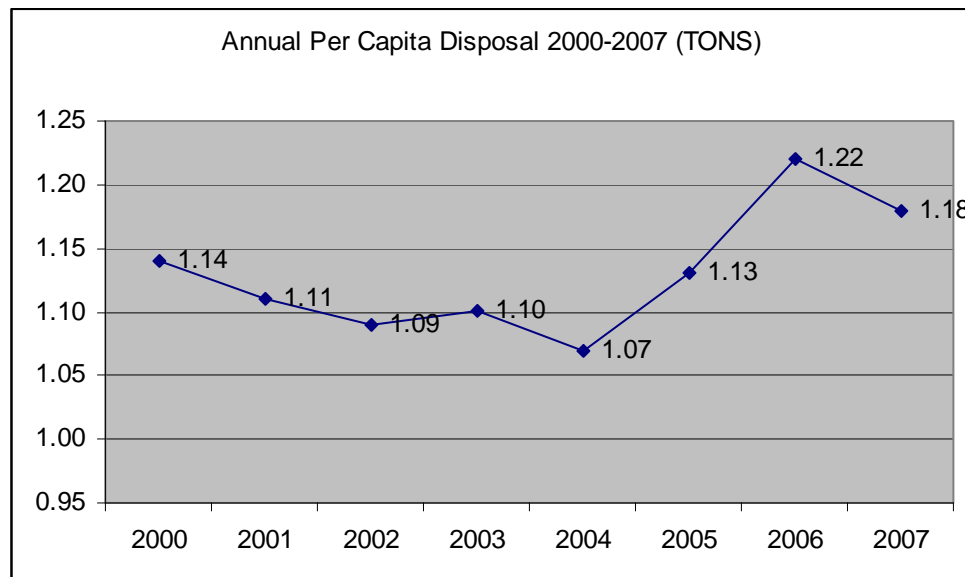


Table 2

Table 2 represents the amount of annual disposal per person in the state from 2000-2007.

**Conclusion:**

Research shows that declining recycling rates are mainly due to consumer confusion. Inconsistent recycling messages and the misuse of recycling symbols and terminology have left consumers wondering about how, and what, they should recycle. Current solid waste statistics show that Missouri continues to make progress in its diversion efforts, however much remains to be done to divert waste flow through continued education in reduction, reuse and recycling. Citizens and consumers can make a difference by the simple act of recycling. More Missourians now have recycling and composting services in their communities, providing the public a convenient and affordable alternative to disposal. Although many communities have recycling and composting services available there are still components of the waste stream that need to be addressed, such as paper products, food waste and construction/demolition debris. Educating policy makers and the American public is an important part of this process, and should be on-going and kept current with today's technology. Even though progress is being made, the citizens of Missouri must continue to strive to increase the diversion rate in the state by increasing their efforts to reduce, reuse and recycle, and seek alternative uses for those everyday items that currently find their way to the landfills. This can have the beneficial effect of reducing GHG production.